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26263 7590 08/06/2009 SONNENSCHN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, WILLIS TOWER CHICAGO, IL 60606-1080				
EXAMINER				
ATALA, JAMIE JO				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

09/843,629

## Applicant(s)

ABE ET AL.

## Examiner

JAMIE JO VENT ATALA

## Art Unit

2621

**Period for Reply**  
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-38 and 40-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-38 and 40-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection in view of Wordemann (EP 0967611 A2).
2. Claims 1-12, 14-38, 40-55 are currently pending with Claims 13 and 39 were previously cancelled in been cancelled by amendment.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12; 14-38; 40-55 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nafeh (US 5,343,251) in view of Wordemann (7,088,909) in view of Hooks et al (US 6,169,542) in further view of Dimitrova et al (US 6,100,941).

#### **[claim 1]**

In regard to Claim 1, Nafeh discloses a signal processing device and method comprising:

- a message section detecting means for detecting a commercial message section from an input signal including at least the commercial message section and the remaining signal section on a time division basis (Figure

1a shows the detecting of the commercial message section as further described in Column 2 Lines 40+. The system detects the commercial message from the inputted signal);

- a display for displaying said index (Figure 4 shows the display for displaying data being processed within the system);
- a recording means for recording (Figure 1a shows the recording means in VCR 20); however fails to disclose
  - a commercial message extracting means for extracting the signal in the commercial message section from the input signal in accordance with a result of the detection by the commercial message section detecting means (Column 2 Lines 63+ through Column 3 Lines 1-16 describes the extracting of the signal as a result of detecting the commercial message section);
  - the recording means for recording each signal extracted from the input signal by the commercial message extracting means
  - an index information extracting means for extracting information from said commercial message section to be used as a user-selectable index representing said recorded commercial message, the information extracted from said commercial message section and associated with said commercial message being one of a starting image, a cut point image, a starting sound or an ending

Wordemann et al teaches a system wherein a commercial is detected and extracted prior to recording and further comprising:

- o a commercial message extracting means for extracting a commercial message in the commercial message section from the input signal in accordance with a result of the detection by the commercial message section detecting means (Column 10 Lines 32-39 describes determining and collecting the advertise block from the stored video data)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the signal processing device, as disclosed by Nafeh, and incorporate an extracting of the commercial message from the detection means, as taught by Wordemann, in order to allow for effective processing and determining of the commercial message.

Hook teaches a system for delivery of index commercials to the system further comprising:

- o the recording means for recording each signal extracted from the input signal by the commercial message extracting means (Figure 7 shows the recording of the commercial based on the extraction from the input signal containing commercial messages. The recording of information pertaining to the commercial and information being processed by the system is further described in Column 12 Lines 10-34. The system records the extracted

commercial message into the subscriber's data base provided on the head end of the system as further seen in Figure 6 to allow for the user to properly choose a commercial that is desired for viewing).

- an index information extracting means for extracting information from said commercial message section to be used as a user-selectable index representing said recorded commercial message and display means for displaying said index (Figure 8 shows the index of commercial messages to be selected for displaying to the user as further described in Column 10 Lines 63+ through Column 11 Lines 1-18).

It is taught by Hook to provide a system for interactive advertisement to allow for user selection of advertisement pertaining to current content (Column 2 Lines 35-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the classifying of input signals, as disclosed by Nafeh, and further disclose the ability to record and index commercial messages, as taught by Hook, in order to provide a fully operable system to allow for the user to select desired commercials to be viewed.

Dimitrova teaches a system for detecting commercial messages further comprising:

- the information extracted from said commercial message section and associated with said commercial message being one of a

starting image, a cut point image, a starting sound or an ending (Figures 1 and 5 show the system and the determining the data for commercial detection based on average cut frame distance, cut frame, cut rate, changes in average cut frame distance, absence of logo, brand name detection, black or static frames in order to properly identify commercials Column 8 Lines 21+ and Column 14 Lines 31+).

It is taught by Dimitrova et al to provide a system for detecting and indexing proper commercial content to allow for proper identification of the signals. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the classifying of input signals, as disclosed by Nafeh in view Wordmann in view of Hook, and further disclose the ability to extract the commercial message based on images being processed by the extracting device, as taught by Dimitrova et al, in order to provide a fully operable system to allow for the user to select desired commercials to be viewed

**[claim 2]**

In regard to Claim 2, Nafeh discloses a signal processing device and method further comprising a characteristic value extracting means for extracting the characteristic values characterizing the commercial message from the detected commercial message section, wherein said recording means records the characteristic values of the commercial message in association with the commercial message (Column 3 Lines 20-

57 describes the processing the characteristic values that are extracted from the commercial message).

**[claim 3]**

In regard to Claim 3, Nafeh discloses a signal processing device and method wherein said commercial message section detecting means detects said commercial message section from said input commercial message on the basis of a characteristic pattern of the commercial message appearing in said input commercial message at predetermined time intervals and a characteristic value reflecting the probability of the commercial message appearing in the input commercial message (Column 5 Lines 30-67 through Column 6 Lines 1-12 describes the detecting of the commercial message section on the basis of characteristic patterns and wherein the probability of the characteristic value is calculated).

**[claim 4]**

In regard to Claim 4, Nafeh discloses a signal processing device and method wherein said commercial message section detecting means detects said commercial message section on the basis of predetermined guide information which is prepared corresponding to said input commercial message (Column 3 Lines 20-57 describes the basis of the prepared corresponding to the input signal).

**[claim 5]**

In regard to Claim 5, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is amplitude of the commercial message in the commercial message section (Column 3 Lines 34-36 and



Column 3 Lines 60+ describes the signal processing device wherein the changes in amplitude are measured between signals/segments).

**[claim 6]**

In regard to Claim 6, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is a spectrum of the commercial message in the commercial message section (Column 3 Lines 37-48 describes the spectrum of the signal wherein the change between signals/segments are determined).

**[claim 7]**

In regard to Claim 7, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is a linear prediction coefficient of the signal in the commercial message section (Column 5 Lines 52-67 describes the linear prediction coefficient of the signal in the first section).

**[claim 8]**

In regard to Claim 8, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is a histogram of a predetermined component of the signal in the commercial message section (Column 3 Lines 20-56 describes the components that comprise a histogram wherein the predetermined component of the signal).

**[claim 9]**

In regard to Claim 9, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is mean value and

difference of the predetermined component of the signal in the commercial message section (Column 6 Lines 6-50 describes the calculation of the average value of the predetermined components).

**[claim 10]**

In regard to Claim 10 the claim limitations have been discussed in Claim 9.

**[claim 11]**

In regard to Claim 11, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is the number of changes of the state of the signal in the commercial message section (Column 6 Lines 40+ describes the characteristic value wherein the commercial message is the number of changes that take place between segments).

**[claim 12]**

In regard to Claim 12, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said commercial message is the time of the change of the state of the signal in the commercial message section (Column 5 Lines 12-27 describes the signal processing wherein the time change determines the state of the signal).

**[claim 14]**

In regard to Claim 14, Nafeh discloses a signal processing device and method wherein said index information is an edited signal obtained by editing said commercial message (Column 1 Lines 15-55 describes the editing of the commercial message).

**[claim 15]**

In regard to Claim 15, Nafeh discloses a signal processing device and method wherein said edited signal obtained by editing said commercial message comprises a set of signals at the time when the state of said commercial message changes which represent the start or ending part of the signals (Column 5 Lines 12-27 describes the timing of the segments/signals which comprises the various signals).

**[claim 16]**

In regard to Claim 16 the claim limitations have been discussed in Claim 15.

**[claim 17]**

In regard to Claim 17, Nafeh discloses a signal processing device and method wherein said index information extracting means extract the signal at a time when the state of said commercial message changes (Figure 1a shows the extracting of the signal at the time when the state of the commercial message changes as further described in Column 3 Lines 20-56).

**[claim 18]**

In regard to Claim 18, Nafeh discloses the signal processing device and method further comprising a comparing means for comparing characteristic values respectively characterizing two commercial messages recorded by said recording means and discarding one of the recorded two commercial messages when the characteristic values of the two commercial messages are determined to be substantially the same (Column 5 Lines 30+ describes the comparing of characteristic values that characterize different commercial messages).

**[claim 19]**

In regard to Claim 19, Nafeh discloses the signal processing device and method wherein said comparing means is detects agreement/disagreement of the commercial messages in a part of the section or in the entire section by comparing said characteristic values (Column 6 Lines 25+ describes the comparing of the commercial messages in a part of the section or entire section that compares to the characteristic values).

**[claim 20]**

In regard to Claim 20, Nafeh discloses the signal processing device and method wherein said comparing means detects the degree of similarity of the commercial messages in a part of the section or in the entire section by comparing said characteristic values (Column 6 Lines 6+ describes the detection of similarity between the first segment and the entire segment).

**[claim 21]**

In regard to Claim 21, Nafeh discloses the signal processing device and method wherein said comparing means performs the comparing operation on a basis of the distance as determined by using a predetermined distance scale between vectors formed at least one of the amplitude of the signal in the commercial message section, the spectrum of the signal in the commercial message section, the linear prediction coefficient of the signal in the commercial message section, the histogram of a predetermined component of the signal in the commercial message section, the mean value of the predetermined component of the signal in the commercial message section, the difference in the predetermined signal component of the signal in the commercial

message section, the number of changes in the state of the signal in the commercial message section and the time of a change in the state of the signal in the commercial message section (Column 3 Lines 20-56 describes the components that comprise a histogram wherein the predetermined component of the signal).

**[claim 22]**

In regard to Claims 22, Nafeh discloses a signal processing device and method further comprising:

- an index information specifying means for specifying desired index information from said displayed plurality of pieces of index information (Figure 1a shows the extraction of index information which represents the commercial message as further described in Column 2 Lines 55-63 and Column 3 Lines 20-57); and
- a retrieving means for retrieving the commercial message corresponding to said specified index information (Column 7 Lines 20-40 describes the retrieving means used for retrieving specified index information).

**[claim 23]**

In regard to Claim 23, Nafeh discloses the signal processing device and method further comprising:

- a retrieving means for retrieving the commercial message substantially agreeing with said commercial message from said recording means, using said commercial message in a part of the section or in the entire section or a characteristic value characterizing the commercial message as

retrieving condition (Column 7 Lines 20-40 describes the retrieving means used for retrieving specified index information).

**[claim 24]**

In regard to Claim 24 the claim limitations have been discussed in Claim 23.

**[claim 25]**

In regard to Claim 25, Nafeh discloses the signal processing device and method further comprising: a measuring means for measuring the number of times and/or the hours of appearances of a same commercial message (Figure 7 Lines 45-57 describes the measuring of the number of occurrences that a segment occurs within the signal).

**[claim 26]**

In regard to Claim 26 the claim limitations have been discussed in Claim 25.

**[claim 27]**

In regard to Claim 27, the claim limitations have been discussed in Claim 1.

**[claim 28]**

In regard to Claim 28, the claim limitations have been discussed in Claim 2.

**[claim 29]**

In regard to Claim 29, the claim limitations have been discussed in Claim 3.

**[claim 30]**

In regard to Claim 30, the claim limitations have been discussed in Claim 4.

**[claim 31]**

In regard to Claim 31, the claim limitations have been discussed in Claim 5.

**[claim 32]**

In regard to Claim 32, the claim limitations have been discussed in Claim 6.

**[claim 33]**

In regard to Claim 33, the claim limitations have been discussed in Claim 7.

**[claim 34]**

In regard to Claim 34, the claim limitations have been discussed in Claim 8.

**[claim 35]**

In regard to Claim 35, the claim limitations have been discussed in Claim 9.

**[claim 36]**

In regard to Claim 36, the claim limitations have been discussed in Claim 10.

**[claim 37]**

In regard to Claim 37, the claim limitations have been discussed in Claim 11.

**[claim 38]**

In regard to Claim 37, the claim limitations have been discussed in Claim 12.

**[claim 40]**

In regard to Claim 40, the claim limitations have been discussed in Claim 14.

**[claim 41]**

In regard to Claim 41, the claim limitations have been discussed in Claim 15.

**[claim 42]**

In regard to Claim 42, the claim limitations have been discussed in Claim 17.

**[claim 43]**

In regard to Claim 43, the claim limitations have been discussed in Claim 18.

**[claim 44]**

In regard to Claim 44, the claim limitations have been discussed in Claim 19.

**[claim 45]**

In regard to Claim 45, the claim limitations have been discussed in Claim 20.

**[claim 46]**

In regard to Claim 46, the claim limitations have been discussed in Claim 21.

**[claim 47]**

In regard to Claim 47, the claim limitations have been discussed in Claim 22.

**[claim 48]**

In regard to Claim 48, the claim limitations have been discussed in Claim 23.

**[claim 49]**

In regard to Claim 49, the claim limitations have been discussed in Claim 24.

**[claim 50]**

In regard to Claim 50, the claim limitations have been discussed in Claim 44.

**[claim 51]**

In regard to Claim 51, the claim limitations have been discussed in Claim 25.

**[claim 52]**

In regard to Claim 52, the claim limitations have been discussed in Claim 26.

**[claim 53]**

In regard to Claim 53, Nafeh discloses a signal processing device and method wherein said input signal comprises a video signal and/or an audio signal and said commercial message covers a commercial message section (Column 7 Lines 30-57 describes that the commercial message covers a commercial message section).



**[claim 54]**

In regard to Claim 54, the claim limitations have been discussed in Claim 53.

**[claim 55]**

In regard to Claim 55, the claim limitations have been discussed in Claim 1.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Merriman et al (US 2003/0028433).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE JO VENT ATALA whose telephone number is (571)272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/JAMIE JO VENT ATALA/  
Examiner, Art Unit 2621